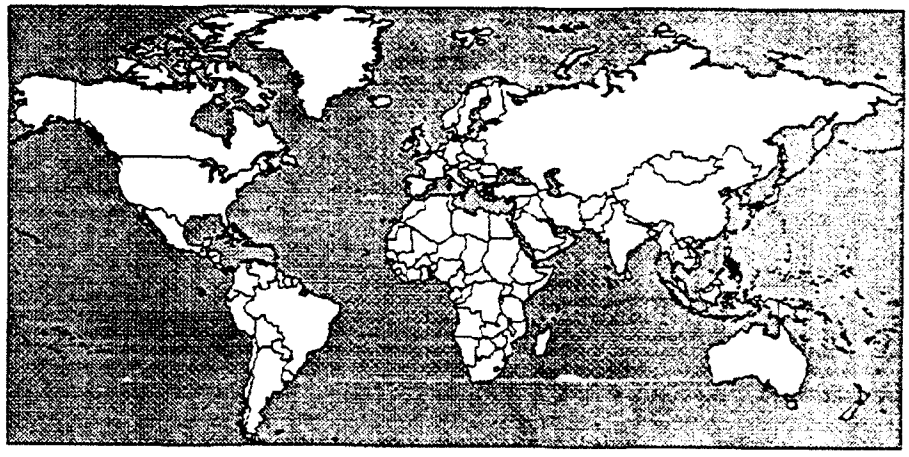
USAFETAC/UH--93/001

AIR WEATHER SERVICE MASTER STATION CATALOG

AWSMSC

USAFETAC CLIMATIC DATABASE USERS HANDBOOK NO. 6



MARCH 1993

USAF
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APPLICATIONS CENTER
Operating Location A
FEDERAL BUILDING, ASHEVILLE, NC 28801-2723

REVIEW AND APPROVAL STATEMENT

USAFETAC/UH--92/001, *Air Weather Service Master Station Catalog, USAFETAC Climatic Database Users Handbook No. 6,* December 1992, has been reviewed and is approved for public release. There is no objection to unlimited distribution of this document to the public at large, or by the Defense Technical Information Center.

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FOR THE COMMANDER

WALTER S. BURGMANN
Scientific and Technical Information Program Officer
31 December 1992

REPORT DOCUMENTATION PAGE

2. Report Date: March 1993

3. Report Type: Users Handbook

4. Title: *Air Weather Service Master Station Catalog USAFETAC Climatic Database Users Handbook No. 6*

6. Authors: Tom Kotz and Phil Clouse

7. Performing Organization Name and Address: USAF Environmental Technical Applications Center Operating Location A, Federal Building, Asheville, NC 28801-2723

8. Performing Organization Report Number: USAFETAC/UH--92/001

12. Distribution/Availability Statement: Approved for public release; distribution unlimited

13. Abstract: Provides users of the Air Weather Service Master Station Catalog with information on database history, production, and content. Also discusses processing and quality control, tells users how to obtain the data.

14. Subject Terms: CLIMATOLOGY, COMPUTER APPLICATIONS, DATABASES, STATION INFORMATION, SURFACE WEATHER OBSERVATIONS, UPPER-AIR OBSERVATIONS

15. Number of Pages: 50

17. Security Classification of Report: Unclassified

18. Security Classification of this Page: Unclassified

19. Security Classification of Abstract: Unclassified

20. Limitation of Abstract: UL

STANDARD FORM 298

USAFETAC CLIMATIC DATABASE USERS HANDBOOKS

These handbooks provide potential users of selected USAFETAC climatic databases (all of which are stored at USAFETAC/s Operating Locations "A" in Asheville, NC) with descriptions of those databases and information on how to obtain and use them. USAFETAC/TN-86/003 is a directory of all the databases stored at OL-A. Order from the AWSTL, Bldg 859, Buchanan St., Scott AFB, IL 62225-5118, DSN 576-5023/5061.

USAFETAC/UH-86/001 (AD-B108863) ***RTNEPH, USAFETAC Climatic Database Users Handbook No. 1,*** September 1986, 18pp. Provides users of USAFETAC'S RTNEPH Climatic Database with information on database history, production, and content. Also discusses processing and quality control, tells how to obtain data.

USAFETAC/UH-86/002 (AD-B108864) ***Surface Temperature Analysis, USAFETAC Climatic Database Users Handbook No. 2,*** October 1986, 17pp. Provides users of USAFETAC'S Eighth Mesh Surface Temperature Analysis Climatic Database with information on database history, production, and content. Also discusses processing and quality control, tells how to obtain the data.

USAFETAC/UH-86/003 (AD-B106038) ***SESS, USAFETAC Climatic Database Users Handbook No. 3,*** August 1986, 83 pp. Provides users of USAFETAC's Space Environmental Support System (SESS) Climatic Database with information on database history, production, and content. Also discusses processing the quality control, tells how to obtain the data.

USAFETAC/UH-86/004 (AD-B108865) ***DATSAV2 Surface, USAFETAC Climatic Database Users Handbook No. 4,*** November 1986. Current reprint incorporates February 1987 errata, November 1988 Change 1. Provides users of USAFETAC'S DATSAV2 Surface Climatic Database with information of database history, production, and content. Also discusses processing and quality control, tells how to obtain the data.

USAFETAC/UH-88/001 (AD-A233023) ***HIRAS, USAFETAC Climatic Database Handbook No. 5 (Revised),*** October 1988, 13pp. Revised February 1991. Provides users of USAFETAC'S High Resolution Analysis System (HIRAS) Climatic Database with information on database history, production, and content. Also discusses processing and quality control, and tells users how to obtain the data.

USAFETAC/UH--93/001 (AD-Pending) ***AWSMSC (Air Weather Service Master Station Catalog), USAFETAC Climatic Database Users Handbook No. 6,*** March 1993, 50pp. Provides users of the AWSMSC and the AWSMSC Station Chronology file with information on database history, processing and quality control and tells how to obtain the data.

TABLE OF CONTENTS

1. INTRODUCTION

1.1 Purpose of the Handbook. This handbook provides users of the subset of the Air Weather Service Master Station Catalog (AWSMSC) and the AWSMSC Station Chronology file with information on their history and content, as well as how data for these files are acquired and how they are updated.

1.2 History. A list (or catalog) of weather stations was maintained in the Washington D.C. area until 1971 when the function was moved to Carswell AFB, Texas. Since that time, the AWSMSC has been produced by Detachment 7 of the Air Force Global Weather Central (Det 7, AFGWC). The AWSMSC contains a list of weather stations worldwide (along with their locations and current reporting status) that are, or have been, reporting surface, upper-air, forecast, or RADAR meteorological data. As of February 1992, there were 14,500 entries. Information used to produce the catalog is obtained from the following organizations, agencies, or publications:

- National Weather Service (NWS)
- World Meteorological Organization (WMO)
- International Civil Aviation Organization (ICAO)
- Flight information publications (FLIPs)
- Federal Aviation Administration (FAA)
- General notices (GENOTs)
- Meteorological notices (METNOs)
- The Canadian Atmospheric Environment Service (CAES)
- The National Oceanic and Atmospheric Administration (NOAA)
- Operational navigation charts (ONCs)
- Operating Location A, USAF Environmental Technical Applications Center (OL-A, USAFETAC)
- Air Force Global Weather Central (AFGWC)
- Air Weather Service
- Various Air Force weather units
- Det 7, AFGWC, in-house software products

Updates and changes to the AWSMSC are made every 2 weeks or whenever necessary. A copy of each updated AWSMSC is sent to OL-A at Asheville, North Carolina, where a subset of the AWSMSC is produced.

The subset of the AWSMSC combines (without altering the original information) various AWSMSC fields to provide a 132-character record entry that contains the information for one station. The subset of the AWSMSC is used in climatological applications by USAFETAC (at Scott AFB, Illinois), by OL-A, and by a number of other DoD and civilian customers.

The Station Chronology file is compiled at OL-A by merging the AWSMSC subsets. It reflects current and past locations and reporting status for all station entries beginning with the January 1977 subset. OL-A plans to add historical information regarding stations' locations and reporting status prior to 1977. This information will be derived from observational data. There were 118,000 entries in the station chronology file as of February 1992.

1.3 Questions and Comments. Address questions or comments to OL-A USAFETAC, Federal Building, Asheville, NC 28801-2723 (DSN 266-3100; FTS/Commercial 704 271-4218).

1.4 Handbook Changes. Changes to this handbook will be issued as required. Users are requested to post changes promptly.

2. AWSMSC SUBSET DATABASE

2.1 Database Construction. The AWSMSC subset consists of unblocked, fixed-length, 144-character records in 9-bit ASCII character format. The data is stored on 9-track 6250-bpi tapes and are in station number sort (col 1-6). Data is also available in 8-bit ASCII character format with record length of 132 characters.

2.2 Database Format Introduction. Each data record in the AWSMSC subset contains information for one weather station. Data is available from Blocks 01-99 (Col 1-2). There are 85 Block numbers that are assigned by the World Meteorological Organization (WMO) and 14 Block numbers with no WMO assigned stations. Appendix A describes the AWSMSC Subset Database format in detail.

- 11 of the 14 block numbers (5,14,18,19,39, 49,75,77,79,90 and 92) are unused in the AWSMSC subset.

- Block number 73 is used by Air Weather Service for special purposes. An example would be test data for the new synoptic code.

- Block 69 is used by AWS for special purposes such as military exercises, non-valid call letters (ICAO), SMARS data with no identifier, and stations reporting by name only (no identifier). All are assigned a station number by Det 7, AFGWC.

- Block 99 is used by AWS (Det 7, AFGWC) for ocean vessels and environmental buoys.

2.3 Quality Control. Quality control of the AWSMSC subset is maintained by Det 7, AFGWC, with its twice monthly updates. Information for the updates is obtained from the sources listed in 1.2. OL-A provides a monthly list of reporting stations that are not identified in the AWSMSC or listed as active for the data type being received. Another listing contains stations reporting by call letters (ICAO) not identified in the AWSMSC. Still another contains a suspect audit for indications of hydrostatic (elevation or pressure) reporting problems.

2.4 Known Shortcomings/Problems. There are no known problems with the data in the AWSMSC Subset. Since the AWSMSC is updated every 2 weeks, errors are corrected as they are identified.

3. STATION CHRONOLOGY DATABASE

3.1 Database Construction. The station chronology file consists of fixed-length, 132-character records and 7920 character blocks (60 records per block) in 8-bit ASCII character format. The data is stored on 9-track 6250-bpi tapes; it is sequenced by station number (col 1-6) and year-version number (col 69-72).

3.2 Database Format Introduction. Each data record in the station chronology file contains information for one weather station. There may be several entries for a single station number, depending on the number of changes that have occurred in the AWSMSC for that station entry since 1977. Data is available from Blocks 01-99 (col 1-2). There are 85 Block numbers that are assigned by the World Meteorological Organization (WMO) and 14 Block numbers with no WMO-assigned stations. Appendix B describes the Station Chronology Database format in detail.

- 11 of the 14 Block numbers (5,14,18,19,39, 49,75,77,79,90 and 92) are unused in the station chronology database.

- Block number 73 is used by AWS for special purposes. An example would be test data for the new synoptic code.

- Block 69 is used by AWS for special purposes such as military exercises, non-valid call letters (ICAO), SMARS data with no identifier, and stations reporting by name only (no identifier). In all cases a station number is assigned by Det 7, AFGWC.

- Block 99 is used by AWS (Det 7, AFGWC) for ocean vessels and environmental buoys.

3.3 Quality Control. As each updated version of the station chronology file is built from the AWSMSC subset, a listing that contains a comparison of entries where a change has been made is produced. This listing is examined to identify and correct erroneous changes. Attempts are also made to identify changes in the station number for a station where the old or new station number had been used in the past, but for a different location.

3.4 Known Shortcomings/Problems. Originally, more than 130 AWSMSC Subsets were merged for the 77-82 period to build the first station chronology file. There were many unneeded entries caused by erroneous entries in the original AWSMSC. Although over 10,000 records caused by these erroneous entries were deleted, errors of this type remain.

APPENDIX A

AIR WEATHER SERVICE MASTER STATION CATALOG SUBSET

Field No	01	02	03	04	05	06	07	08	09
Data Field	Station Number	Off Hr Ind	Call Ltrs	Call Ltr Status	Res	Station Name	Res	Country State Province	Res
Data	XXXXXX	X	XXXXX	X	X	XXXXXX	X	XX	X
Char Loc	1-6	7	8-12	13	14	15-33	34	35-36	37

Field No	10	11	12	13	14	15	16	17
Data Field	SFC Lat deg/mins north/south	RES	SFC Lon deg/mins east/west	SFC Elev	Elev Source Code	Other Type Data	Type Data SFC	Press Report LVL
Data	XX/XX X	X	XXX/XX X	XXXXX	X	X	X	X
Char Loc	38-42	43	44-49	50-54	55	56	57	58

Field No	18	19	20	21	22	23	24	25	26
Data Field	SYN Report Units	Responsible Agency	Source Stn Inform	Station Category	Auto Stn Type	Res	WMO Reg Code	RNW Dir	Hrly Report Units
Data	X	X	X	X	X	X	X	XX	X
Char Loc	59	60	61	62	63	64	65	66-67	68

Field No	27	28	29	30	31	32
Data Field	Surface Data Receipt Statistics	Res	UA Lat Deg/Mins N/S	Res	UA Long Deg/Mins E/W	UA Elev
Data	XXXXXXXXXXXXXXX	X	XX/XX X	X	XXX/XX X	XXXXX
Char Loc	69-92	93	94-98	99	100-105	106-110

Field No	33	34	35	36	37	38	39	40	41
Data Field	RES	PIBAL Units	ROAB UNITS	U/A Variations	U/A Instu Type	PIBAL Receipt Status	RES	ROAB Receipt Stats	Coastal Stn Ind
Data	X	X	X	X	XX	XXXX	X	XXXX	X
Char Loc	111	112	113	114	115-116	117-120	121	122-125	126

Field No	42	43	44
Data Field	Last Chg Yr/Mo	Last Chg Type	Stn Report Status
Data	XX/XX	X	X
Char Loc	127-130	131	132

FIELD NO.	DESCRIPTION OF FIELD AND COMMENTS
01	STN NUM. A 6-digit number with the first 5 digits assigned to a particular weather reporting location IAW WMO rules plus a sixth digit as follows: 0 = The first five digits are the actual block/station number (WMO number) assigned to this location IAW WMO rules. 1 = WMO number no longer assigned to this location 2 = WMO number no longer assigned to this location 3 = Stations reporting by call letters only (no assigned WMO number) 4 = Stations reporting by call letters only (no assigned WMO number) 5 = Stations reporting by call letters only (no assigned WMO number) 6 = Stations reporting by call letters only (no assigned WMO number) 7 = Stations reporting by call letters only (no assigned WMO number) 8 = Stations reporting by call letters only (no assigned WMO number) 9 = Stations reporting by call letters only (no assigned WMO number) Exceptions are in blocks 69, 73, and 99, which are assigned by AWS (Det 7, AFGWC)
02	OFF HR IND. Indicates synoptic reporting status, as follows: . = Station sends synoptic reports on hours other than standard synoptic. blank = Does not send synoptic reports on hours other than standard synoptic.
03	CALL LTRS. Call letters refer to ICAO location indicators or FAA, NOAA/NWS, and/or CAES location identifiers.
04	CALL LTR STATUS. blank = either no call sign or the call sign is actually used for surface observations * = the call sign is not currently used for surface obs (may be active for forecasts and/or radar reports)
05	RES. Coded as a "blank."
06	STN NAME. Station Name. For an explanation of the station name field and the abbreviations used, see Appendix E.
07	RES. Coded as "blank."
08	COUNTRY/STATE/PROVINCE. Indicates the Country, State or Province where the station is located (see Appendix C).
09	RES. Coded as "blank."
10	SFC LAT. Latitude for the surface reports from the station. In the form (DDMMS), where: DD = Degrees MM = Minutes S = Sign - N is North Latitude, S is South Latitude
11	RES. Coded as "blank."

12 SFC LON. Longitude for the surface reports from the station.
In the form (DDDMMS), where:
DDD = Degrees
MM = Minutes
S = Sign - E is East longitude, W is West longitude

13 SFC ELEV. Elevation, in meters, for the surface reports from the station. Elevation is the highest point on the runway if the station is an airfield. A sign precedes the elevation (Col 50). Blank = positive values and "-" = negative values.

14 ELEV SOURCE Code. Source code for surface elevation, coded as follows:
P = Reported station elevation (WMO HP)
A = Official elevation of the aerodrome (WMO HA)
H = Average elevation of ground at the station (WMO H)
Z = Actual elevation of the ivory point of the barometer
C = Elevation derived by hydrostatic calculations
E = Elevation estimated from topography charts
M = Flight information publication (FLIP) charts
U = Elevation unknown
blank = This elevation was included in the AWSMSC before the elevation source code was implemented.

15 OTHER TYPE DATA. Indicator for the type of data reports, other than surface, as follows:
0 = Inactive
1 = Forecast (FT)
2 = Radar (SD)
3 = Upper air (UA)
4 = FT and SD
5 = FT and UA
6 = SD and UA
7 = FT and SD and UA
8 = Reserved
9 = Reserved

16 TYPE DATA SFC. Type of surface data reports, as follows:
0 = Inactive *
1 = Airways only
2 = METAR only
3 = AERO only
4 = Synoptic only
5 = Synoptic and Airways
6 = Synoptic and METAR
7 = Synoptic and AERO
8 = Synoptic, METAR and AERO
9 = Synoptic, METAR and Airways
A = SMARS
B = Airways and METAR
C = AERO and METAR

* Information contained on inactive stations are reflections of their last receipt. Location and other data should be validated prior to reactivation, as the station may have been relocated or its identifier reassigned.

17 PRESS REPORT LVL. Pressure reporting level, as follows:

0	=	Not used
1	=	Sea level
2	=	Station
3	=	850 mb
4	=	700 mb
5	=	500 mb
6	=	Unknown
7	=	850 mb reporting in decameters
8	=	700 mb reporting in decameters

18 SYN REPORT UNITS. Synoptic reporting units, as follows:

WIND	TEMP	PRESSURE	VISIBILITY
A = Knots	Celsius	Hectopascals	WMO Table 4377
E = Knots	Celsius	Geopotential Meters	WMO Table 4377
M = M/Sec	Celsius	Hectopascals	WMO Table 4377
Q = M/Sec	Celsius	Geopotential Meters	WMO Table 4377

blank = Synoptic not reported

19 RESPON AGENCY. Indicates the responsible U.S. Agency for the station, as follows:

1	=	Air Force or Army
2	=	Navy, Marines or Coast Guard
blank	=	Other (not specified)

20 SOURCE STN INFORM. Indicates the source of information on the station

1	=	HQ PACAF/DOW
2	=	HQ/USAFE/DOW
3	=	OL-A, USAFETAC, Asheville, NC
A	=	Air Weather Service (AWS)
C	=	Canadian Atmospheric Environment Service (CAES)
E	=	USAF Environmental Technical Applications Center (USAFETAC)
F	=	Federal Aviation Administration (FAA)
G	=	Air Force Global Weather Central (AFGWC)
K	=	Carswell Automated Weather Network (Det 7, AFGWC)
O	=	Operational Navigation Charts (ONC)
Q	=	U.S. National Weather Service (NWS)
R	=	Former Union of Soviet Socialist Republics (USSR) Information
S	=	Enroute supplements/flight information publications
U	=	United States Weather Bureau (USWB)/National Oceanic and Atmospheric Administration (NOAA)
W	=	World Meteorological Organization (WMO)

21 STATION CATEGORY.

1	=	AFGWC Met Watch Station
2	=	AFGWC TAFVER Station
3	=	Supplemental Aviation Station
4	=	1 and 2
5	=	1 and 3
6	=	2 and 3
7	=	1, 2, and 3
blank	=	Non-AFGWC Met Watch, Non-AFGWC TAFVER, or Non-Aviation station

22 AUTO STN TYPE. If an automatic station, this field indicates type, as follows:

E = RAMOS	S = Airways & RAMOS
F = AMOS/AWOS	U = Airways & AMOS/AWOS
G = AUTOB	V = Airways & AUTOB
H = MARS I	Y = Airways & MARS I
J = MARS II	Z = Airways & MARS II
K = MAPS I	1 = Airways & MAPS I
Q = MAPS II	2 = Airways & MAPS II

Blank = Non-automatic station, or unknown

23 RES. Reserved, coded as "blank."

24 WMO REG CODE. WMO regional coding practice used, as follows:

0	=	Permanent ships and buoys (USAFETAC or KAWN assigned)
1	=	Africa
2	=	Asia (Including former USSR east of the Ural Mtns)
3	=	South America
4	=	North and Central America
5	=	South west Pacific
6	=	Europe (Including former USSR west of the Ural Mtns)
7	=	Antarctica (USAFETAC or KAWN assigned)

25 RNW DIR. Runway direction. This information in the AWSMSC subset is maintained by AFGWC. All directions are *true*.

01 = 010 degrees, 02 = 020 degrees, 36 = 360 degrees, etc...

26 HRLY REPORT UNITS. Hourly reporting units for wind, temperature, pressure and visibility:

WIND	TEMP	PRESSURE	VISIBILITY
A = Knots	Celsius	Hectopascals	Meters
C = Knots	Celsius	Inch of Mercury	Meters
K = Km/Hr	Celsius	Hectopascals	Meters
M = M/Sec	Celsius	Hectopascals	Meters
N = M/Sec	Celsius	Hectopascals	Statute-miles
Y = Knots	Celsius	Both Hpa and Inch	Statute-miles
Z = Knots	Fahrenheit	Both Hpa and Inch	Statute-miles

blank = Hourly not reported

27 SURFACE DATA RECEIPT STATISTICS. Each column 69-92 represents 1 hour from 00Z through 23Z. Det 7, AFGWC, computes hourly receipt statistics monthly. The receipt statistics for synoptic data (SM/SN/SI) are compared to the receipt statistics for hourly data (SA). The greater value of the two is converted, for that hour, according to the following code:

+ = 1 to 5 reports		
A = 6	J = 15	S = 24
B = 7	K = 16	T = 25
C = 8	L = 17	U = 26
D = 9	M = 18	V = 27
E = 10	N = 19	W = 28
F = 11	O = 20	X = 29
G = 12	P = 21	Y = 30
H = 13	Q = 22	Z = 31
I = 14	R = 23	

If the station was not received during the month for a given hour, it is considered inactive for that hour. A digit (1-9) tells how many months it has been since a report was received from the station for that hour. A period (.) indicates the station has been inactive at that hour for more than 9 months. When all hours are considered to be inactive, the periods are replaced by blanks.

28 RES. Reserved, coded as "blank."

29 UA LAT. Latitude for the upper air reports from the station.
In the form (DDMMS), where:
DD = Degrees
MM = Minutes
S = Sign - N is North latitude, S is South latitude

30 RES. Coded as "blank."

31 UA LON. Longitude for the upper-air reports from the station.
In the form (DDDMMS), where:
DDD = Degrees
MM = Minutes
S = Sign; E is East longitude, W is West longitude

32 UA ELEV. Elevation, in meters, for the upper air reports from the station. Elevation is the highest point on the runway if the station is an airfield. A sign precedes the elevation (Col 50). Blank = positive values and "-" = negative values.

33 RES. Reserved, coded as "blank."

34 PIBAL UNITS. Coded as follows:
0 = No PIBALS
1 = Knots and Feet
3 = M/Sec and Meters
7 = Knots and Meters
9 = Unknown

35 RAOB UNITS. Coded as follows:

0	=	No RAOB
3	=	Deg C, M/Sec, and Meters
7	=	Deg C, Knots, and Meters
9	=	Unknown

36 U/A VARIATIONS. Coded as follows:

0	=	Unknown
1	=	PIBALS are reported in feet
3	=	May report 300, 600, and 900 meter AGL winds in addition to MSL winds
4	=	Chinese upper air type using 'C' series codes variation 3 also included
7	=	No variations

37 U/A INSTRU TYPE. Upper-air instrument type indicators. For an explanation of indicators, see Appendix F.

38 PIBAL RECEIPT STATS. Each column represents 1 hour of 00Z, 06Z, 12Z and 18Z with the code for each of the hours as per surface reporting statistics code (field 27).

39 RES. Reserved, coded as "blank."

40 RAOB RECEIPT STATS. Each column represents one hour of 00Z, 06Z, 12Z and 18Z with the code for each of the hours as per surface reporting statistics code (field 27).

41 COASTAL STN IND. AFGWC coastal station indicator, coded as follows:

blank	=	WMO station not on coast
C	=	WMO station located on coast and/or reports sea data

42 LAST CHG. Indicates the year-month (YYMM) of the last change to a station's entry for the last change types shown in Field 43

43 LAST CHG TYPE. Indicates the type of change to a station's entry, coded as follows:

1	=	Delete
2	=	Coordinates
3	=	Active/inactive status
4	=	Index number
5	=	Call letters
6	=	Symbol change
7	=	New station (add)
8	=	Inactivated by WMO
9	=	Inactivated by AWS (Det 7, AFGWC)

44 STN REPORT STATUS. Indicator for the type of reports for the station, coded as follows:

0	=	Station inactive	4	=	Surface only
1	=	RAOB only	5	=	Surface and RAOB
2	=	PIBAL only	6	=	Surface and PIBAL
3	=	PIBAL and RAOB	7	=	Surface, RAOB, and PIBAL

APPENDIX B

STATION CHRONOLOGY

INFORMATION RECORD

Field No	01	02	03	04	05	06	07	08	09
Data Field	Info Rcd Ind	Res	Begin Yr	Res	Begin Ver	Res	End Yr	Res	End Ver
Data	000000	X	YR-XX	X	VER#XX	X	YR-XX	X	VER#XX
Char Loc	1-6	7	8-12	13	14-20	21	22-26	27	28-34

DATA RECORD

Field No	01	02	03	04	05	06	07	08	09
Data Field	Station Number	Off Hr Ind	Call Ltrs	Call Ltr Status	Res	Station Name	Res	Country State Province	Res
Data	XXXXXX	X	XXXXX	X	X	XXXXXX	X	XX	X
Char Loc	1-6	7	8-12	13	14	15-33	34	35-36	37

Field No	10	11	12	13	14	15	16	17
Data Field	SFC Lat deg/mins north/south	RES	SFC Lon deg/mins east/west	SFC Elev	Elev Source Code	Other Type Data	Type Data SFC	Press Report LVL
Data	XX/XX X	X	XXX/XX X	XXXXX	X	X	X	X
Char Loc	38-42	43	44-49	50-54	55	56	57	58

Field No	18	19	20	21	22	23	24	25	26
Data Field	SYN Report Units	Responsible Agency	Source Stn Inform	Station Category	Auto Stn Type	Res	WMO Reg Code	RNW Dir	Hrly Report Units
Data	X	X	X	X	X	X	X	XX	X
Char Loc	59	60	61	62	63	64	65	66-67	68

Field No	27	28	29	30	31	32	33
Data Field	Yr-Ver# of Record	Res	Yr-Ver# Record Deleted	Res	UA Lat Deg/Mins N/S	Res	UA Long Deg/Min E/W
Data	XXXX	X	XXXX	XXXXX	XXX/XX X	X	XXX/XX X
Char Loc	69-72	73	74-77	78-93	94-98	99	100-105

Field No	34	35	36	37	38	39	40	41	42
Data Field	UA Elev	Res	PIBAL Units	RAOB Units	U/A Variations	U/A Instu Type	RES	Old Stn# Ind	Old Stn Number
Data	SXXXX	X	X	X	X	XX	X	X	XXXXXX
Char Loc	106-110	111	112	113	114	115-116	117	118	119-124

Field No	43	44	45	46	47
Data Field	Res	Coastal Station Ind	Last Chg Yr/Mo	Last Chg Type	Stn Report Status
Data	X	X	XX/XX	X	X
Char Loc	125	126	127-130	131	132

INFORMATION RECORD

Note: The first record is an information record that contains the beginning-ending year and version number of the AWSMSC SUBSETS used to build the station chronology file.

FIELD NO	DESCRIPTION OF FIELD AND COMMENTS
01	INFO RCD IND. Zero filled indicates the Station Chronology File.
02	RES. Coded as a "blank."
03	BEGIN YR. The characters "YR-" followed by the year of the first AWSMSC Subset input to the Station Chronology File. Ex. YR-76
04	RES. Coded as a "blank."
05	BEGIN VER. The version number of the first AWSMSC Subset input.
06	RES. Coded as a "blank."
07	END YR. The characters "YR-" followed by the year of the last AWSMSC Subset input to the Station Chronology File. Ex. YR-89.
08	RES. Coded as a "blank."
09	END VER. The version number of the last AWSMSC Subset used.

DATA RECORDS

FIELD NO	DESCRIPTION OF FIELD AND COMMENTS
01	STN NUMBER A 6-digit number with the first 5 digits assigned to a particular weather reporting location IAW WMO rules plus a sixth digit as follows: 0 = The first five digits are the actual block/station number (WMO number) assigned to this location IAW WMO rules. 1 = WMO number no longer assigned to this location 2 = WMO number no longer assigned to this location 3 = Stations reporting by call letters only (no assigned WMO number) 4 = Stations reporting by call letters only (no assigned WMO number) 5 = Stations reporting by call letters only (no assigned WMO number) 6 = Stations reporting by call letters only (no assigned WMO number) 7 = Stations reporting by call letters only (no assigned WMO number) 8 = Stations reporting by call letters only (no assigned WMO number) 9 = Stations reporting by call letters only (no assigned WMO number)

02 OFF HR IND. Indicates synoptic reporting status, as follows:

. = Station sends synoptic reports on hours other than standard synoptic.
blank = Does not send synoptic reports on hours other than standard synoptic.

03 CALL LTRS. Call letters refer to ICAO location indicators or FAA, NOAA/NWS, and/or CAES location identifiers.

04 CALL LTR STATUS.

blank = either no call sign or the call sign is actually used for surface observations
* = the call sign is not currently used for surface obs (may be active for forecasts and/or radar reports)

05 RES. Coded as a "blank."

06 STN NAME. Station Name. For an explanation of the station name field and the abbreviations used, see Appendix E.

07 RES. Coded as "blank."

08 COUNTRY/STATE/PROVINCE. Indicates the Country, State or Province where the station is located (see Appendix C).

09 RES. Coded as "blank."

10 SFC LAT. Latitude for the surface reports from the station.
In the form (DDMMS), where:
DD = Degrees
MM = Minutes
S = Sign - N is North latitude, S is South latitude

11 RES. Coded as "blank."

12 SFC LON. Longitude for the surface reports from the station.
In the form (DDDMMS), where:
DDD = Degrees
MM = Minutes
S = Sign - E is East longitude, W is West longitude

13 SFC ELEV. Elevation, in meters, for the surface reports from the station. Elevation is the highest point on the runway if the station is an airfield. A sign precedes the elevation (Col 50).

Blank = positive and
- = negative values

14 ELEV SOURCE CODE. Source code for surface elevation, coded as follows:
P = Reported station elevation (WMO HP)
A = Official elevation of the aerodrome (WMO HA)
H = Average elevation of ground at the meteorological station (WMO H)

Z = Actual elevation of the ivory point of the barometer
C = Elevation derived by hydrostatic calculations
E = Elevation estimated from topography charts
M = Flight information publication (FLIP) charts
U = Elevation unknown
blank = This elevation was included in the AWSMSC before the elevation source code was implemented.

15 OTHER TYPE DATA. Indicator for the type of data reports, other than surface, as follows:

0 = Inactive
1 = Forecast (FT)
2 = Radar (SD)
3 = Upper air (UA)
4 = FT and SD
5 = FT and UA
6 = SD and UA
7 = FT and SD and UA
8 = Reserved
9 = Reserved

16 TYPE DATA SFC. Type of surface data reports, as follows:

0 = Inactive *
1 = Airways only
2 = METAR only
3 = AERO only
4 = Synoptic only
5 = Synoptic and Airways
6 = Synoptic and METAR
7 = Synoptic and AERO
8 = Synoptic, METAR and AERO
9 = Synoptic, METAR and Airways
A = SMARS
B = Airways and METAR
C = AERO and METAR

* Information contained on inactive stations are reflections of their last receipt. Location and other information should be validated prior to reactivation as the station may have been relocated or its identifier may have been reassigned.

17 PRESS REPORT LVL. Pressure reporting level, as follows:

0 = Not used
1 = Sea level
2 = Station
3 = 850 mb
4 = 700 mb
5 = 500 mb
6 = Unknown
7 = 850 mb reporting in decameters
8 = 700 mb reporting in decameters

Until 1 Jan 83 the following codes were also used:

9 = 500 mb reporting in decameters
A = 500 GPM
B = 1000 GPM
C = 2000 GPM
D = 2517 GPM
E = 3308 GPM

18 SYN REPORT UNITS. Synoptic reporting units, as follows:

WIND	TEMP	PRESSURE	VISIBILITY
A = Knots	Celsius	Hectopascals	WMO Table 4377
E = Knots	Celsius	Geopotential meters	WMO Table 4377
M = M/Sec	Celsius	Hectopascals	WMO Table 4377
Q = M/Sec	Celsius	Geopotential Meters	WMO Table 4377

blank = Synoptic not reported

Note: Until 1 Jan 83, col. 59 was labeled SFC WIND/TEMP UNITS, and codes used were as follows:

0 = Deg F and knots (English spacial units)
1 = Deg C and knots (English spacial units, max-min temp in deg F). If Airways obs, units are same as 0
2 = Deg C and knots (Metric spacial units)
3 = Deg C and m/sec (Metric spacial units)
4 = Wind in knots, other units unknown
5 = Wind in m/sec, other units unknown
7 = Unknown

19 RESPON AGENCY. Indicates the responsible U.S. Agency for the station, as follows:

1 = Air Force or Army
2 = Navy, Marines or Coast Guard
blank = Other (not specified)

20 SOURCE STN INFORM. Indicates the source of information on the station

1 = HQ PACAF/DOW
2 = HQ USAFE/DOW
3 = OL-A, USAFETAC, Asheville, NC
4 = Third Weather Wing (3WW)
A = Air Weather Service (AWS)
B = Braniff locations for South America
C = Canadian Atmospheric Environment Service (CAES)
E = USAF Environmental Technical Applications Center (USAFETAC)
F = Federal Aviation Administration (FAA)
G = Air Force Global Weather Central (AFGWC)
J = Jepsen (JEPS)
K = Carswell Automated Weather Network (Det 7, AFGWC)
M = Located by meteorological analysis

N = Hydrology office publications (Navy)
O = Operational Navigation Charts (ONC)
P = Pan American locations for South America
Q = U.S. National Weather Service (NWS)
R = Former Union of Soviet Socialist Republics (USSR) Information
S = Enroute supplements/flight information publications
U = United States Weather Bureau (USWB)/National Oceanic and Atmospheric Administration (NOAA)
W = World Meteorological Organization (WMO)

21 STATION CATEGORY.

blank = Non-AFGWC Met Watch, Non-AFGWC TAVER, or Non-Aviation Station
1 = AFGWC Met Watch Station
2 = TAFVER Station
3 = Supplemental Aviation Station
4 = 1 and 2
5 = 1 and 3
6 = 2 and 3
7 = 1, 2, and 3

NOTE: Prior to 20 Mar 86, this field was used for 'AFGWC MET WATCH INDICATOR' with the following code used:

Non-Met Watch Station. Coded as a "blank."
Met Watch Station. Coded as 'M'.

22 AUTO STN TYPE. If station is an automatic station, this field indicates type, as follows:

E = RAMOS	S = Airways & RAMOS
F = AMOS/AWOS	U = Airways & AMOS/AWOS
G = AUTOB	V = Airways & AUTOB
H = MARS I	Y = Airways & MARS I
J = MARS II	Z = Airways & MARS II
K = MAPS I	1 = Airways & MAPS I
Q = MAPS II	2 = Airways & MAPS II

Note: Prior to 20 Mar 86, this field was used for 'AFGWC TAFVER STATION' and the following codes were used:

Non TAFVER Station. Coded as a "blank."
AFGWC TAFVER Station. Coded as "1".

23 RES. Reserved, coded as "blank."

Note: Prior to 20 Mar 86, this field was used for "SUPPLEMENTARY AVIATION REPORTING STATION" and the following code was used:

Non-TAFVER Station. Coded as a "blank."
Supplemental Aviation Station. Coded as "1."

24 WMO REG CODE. WMO regional coding practice used, as follows:

0 = Permanent ships and buoys (USAFETAC or KAWN assigned)
1 = Africa
2 = Asia (including the former USSR east of the Ural Mtns)
3 = South America
4 = North and Central America
5 = South-west Pacific
6 = Europe (including the former USSR west of the Ural Mtns)
7 = Antarctica (USAFETAC or KAWN assigned)

25 RNW DIR. Runway direction. This information in the AWSMSC subset is controlled by AFGWC. All directions are *true*.

01 = 010 degrees, 02 = 020 degrees, 36 = 360 degrees, etc...

26 HRLY REPORT UNITS. Hourly reporting units for the elements wind, temperature, pressure, and visibility, as follows:

WIND	TEMP	PRESSURE	VISIBILITY
A = Knots	Celsius	Hectopascals	Meters
C = Knots	Celsius	Inch of Mercury	Meters
K = Km/Hr	Celsius	Hectopascals	Meters
M = M/Sec	Celsius	Hectopascals	Meters
N = M/Sec	Celsius	Hectopascals	Statute-miles
Y = Knots	Celsius	Both Hpa and Inch	Statute-miles
Z = Knots	Fahrenheit	Both Hpa and Inch	Statute-miles

blank = Hourly not reported

Note: Until 1 Jan 83, this field was blank (reserved)

27 YR-VER# OF RECORD. Contains the year and version number of the AWSMSC Subset that this entry came from.

28 RES. Reserved, coded as "blank."

29 YR-VER# RECORD DELETED. Contains the year and version number of the AWSMSC Subset when this entry was deleted.

30 RES. Reserved, coded as "blank."

31 UA LAT. Latitude for the upper-air reports from the station.
In the form (DDMMS), where:
DD = Degrees
MM = Minutes
S = Sign - N is North latitude, S is South latitude

32 RES. Coded as "blank."

33 UA LON. Latitude for the upper-air reports from the station.
In the form (DDDMMS), where:
DDD = Degrees
MM = Minutes
S = Sign - E is East longitude, W is West longitude

34 UA ELEV. Elevation, in meters, for the upper-air reports from the station. Elevation is the highest point on the runway if the station is an airfield. A sign precedes the elevation (Col 50).

Blank = positive values
\- = negative values

35 RES. Reserved, coded as "blank."

36 PIBAL UNITS. Coded as follows:
0 = No PIBALS
1 = Knots and Feet
3 = M/Sec and Meters
7 = Knots and Meters
9 = Unknown

37 RAOB UNITS. Coded as follows:
0 = No RAOB
3 = Deg C, M/Sec, and Meters
7 = Deg C, Knots, and Meters
9 = Unknown

38 U/A VARIATIONS. Coded as follows:
0 = Unknown
1 = PIBALS are reported in feet
3 = Station may report 300, 600, and 900 meter AGL winds in addition to MSL winds
4 = Chinese upper air type using 'C' series codes, variation 3 also included
7 = No variations

39 U/A INSTRU TYPE. Upper air instrument type indicators. For an explanation of indicators used, see Appendix F.

40 RES. Reserved, coded as "blank"

41 OLD STN# IND. Used to indicate if this station number was once used for a different location. "blank" = not used before, * = used before

42 OLD STN NUMBER. contains the old station number, if field 41 = *.

43 RES. Reserved, coded as "blank."

44 COASTAL STN IND. AFGWC coastal station indicator, codes as follows:

Blank = WMO station not on coast

C = WMO station located on coast and/or reports sea data

45 LAST CHG. Indicates the year-month (YYMM) of the last change to a station's entry for the last change types shown in Field 46.

46 LAST CHG TYPE. Indicates the type of change to a station's entry, coded as follows:

1 = Delete
2 = Coordinates
3 = Active/inactive status
4 = Index number
5 = Call letters
6 = Symbol change
7 = New station (add)
8 = Inactivated by WMO
9 = Inactivated by KAWN

47 STN REPORT STATUS. Indicator for the type of reports for the station, coded as follows:

0 = Station inactive
1 = RAOB only
2 = PIBAL only
3 = PIBAL and RAOB
4 = Surface only
5 = Surface and RAOB
6 = Surface and PIBAL
7 = Surface, RAOB, and PIBAL

APPENDIX C

FIELD 08: **COUNTRY/STATE/PROVINCE IDENTIFIER**

UNITED STATES IDENTIFIERS

ALABAMA	AL	MISSOURI	MO
ALASKA	AK	MONTANA	MT
ARIZONA	AZ	NEBRASKA	NE
ARKANSAS	AR	NEVADA	NV
CALIFORNIA	CA	NEW HAMPSHIRE	NH
COLORADO	CO	NEW JERSEY	NJ
CONNECTICUT	CT	NEW MEXICO	NM
DELAWARE	DE	NEW YORK	NY
DISTRICT OF COLUMBIA	DC	NORTH CAROLINA	NC
FLORIDA	FL	NORTH DAKOTA	ND
GEORGIA	GA	OHIO	OH
HAWAII	HI	OKLAHOMA	OK
IDAHO	ID	OREGON	OR
ILLINOIS	IL	PENNSYLVANIA	PA
INDIANA	IN	RHODE ISLAND	RI
IOWA	IA	SOUTH CAROLINA	SC
KANSAS	KS	SOUTH DAKOTA	SD
KENTUCKY	KY	TENNESSEE	TN
LOUISIANA	LA	TEXAS	TX
MAINE	ME	UTAH	UT
MARYLAND	MD	VERMONT	VT
MASSACHUSETTS	MA	VIRGINIA	VA
MICHIGAN	MI	WASHINGTON	WA
MINNESOTA	MN	WEST VIRGINIA	WV
MISSISSIPPI	MS	WISCONSIN	WI
		WYOMING	WY

CANADIAN PROVINCE IDENTIFIERS

ALBERTA	AB	NOVA SCOTIA	NS
BRITISH COLUMBIA	BC	ONTARIO	ON
MANITOBA	MN	PRINCE EDWARD IS	PE
NEW BRUNSWICK	NB	QUEBEC	QB
NEWFOUNDLAND	NF	SASKATCHEWAN	SA
NORTHWEST TERRITORY	NT	YUKON	YK

SOVIET UNION IDENTIFIERS

ALMA-ATA	AL	ARKHANGEL	AR
DIKSON	DK	KHABAROVSK ONE	HA
KHABAROVSK TWO	HB	IRKUTSK	IR
KIEV ONE	KI	KIEV TWO	KV
LENINGRAD	LE	MINSK	MI
MOSCOW	MS	NOVOSIBIRSK	NO
SVERDLOVSK	SV	TASHKENT	TA
TBILISI	TB	TIKSI	TK

AUSTRALIAN IDENTIFIERS

NORTHERN TERRITORY	NT	NEW SOUTH WALES	NW
QUEENSLAND	QU	SOUTH AUSTRALIA	SA
TASMANIA	TA	VICTORIA	VC
WESTERN AUSTRALIA	WE	CAPITAL TERRITORY	CT
NOT IN A PROVINCE	**		

CHINESE PROVINCE IDENTIFIERS

BEI-JING	BJ	CHENG-DU	CD
GUANG-ZHOW	GZ	HAN-KOW	HK
LAN-ZHOW	LZ	URUM-QUI	UQ
SHANG-HAI	SH	SHEN-YANG	SY

COUNTRY IDENTIFIER
ASSOCIATION OF WMO IDENTIFIERS WITH THE COUNTRY
*** = Internally assigned country identifier**

ALPHABETICAL BY COUNTRY IDENTIFIER		ASSOCIATED WMO BLOCKS
AB	ALBANIA	13
AG	ARGENTINA	87,88
AH	AFGHANISTAN	40
AI	ASCENSION ISLAND	61
AL	ALGERIA	60
AN	ANGOLA	66
AT	ANTIGUA,ST.KITTS,NEVIS,BARBUDA AND MONTSERRAT	78
AU	AUSTRALIA	94,95
AZ	AZORES	08
BA	BAHAMAS	78
BC	BOTSWANA	68
BE	BERMUDA	78
BF*	BRUNEI	96
BH	BELIZE	78
BI	BURUNDI	64
BJ	BENIN	65
BM	BURMA/MYANMAR	48
BN	BAHRAIN	40,41
BO	BOLIVIA	85
BR	BARBADOS	78
BT*	BRITISH INDIAN OCEAN TERRITORY	61
BU	BULGARIA	15
BV	BOUVET ISLAND	68
BW	BANGLADESH	41
BX	BELGIUM,LUXEMBOURG	06
BY	BYELORUSSIA	26,33
BZ	BRAZIL	82,83
CA	CARIBBEAN AREA AND CENTRAL AMERICA	78
CD	CHAD	64
CE	CENTRAL AFRICAN REPUBLIC	64
CG	CONGO	64
CH	CHILE	85
CI	CHINA	50-59
CM	CAMEROON,UNITED REPUBLIC OF	64
CN	CANADA	71
CO	COLOMBIA	80
CR	CANARY ISLANDS (SPAIN)	60
CS	COSTA RICA	78
CT	CANTON ISLAND	91
CU	CUBA	78
CV	CAPE VERDE	08
CY	CYPRUS	17
CZ	CZECHOSLOVAKIA	11

DD	GERMAN DEMOCRATIC REPUBLIC	09
DJ	DJIBOUTI	63
DL	GERMANY,FEDERAL REPUBLIC OF	10
DN	DENMARK	06
DO	DOMINICA	78
DR	DOMINICAN REPUBLIC	78
DY	DEMOCRATIC YEMEN	40,41
EG	EGYPT	62
EQ	ECUADOR	84
ER	UNITED ARAB EMIRATES	40,41
ES	EL SALVADOR	78
ET	ETHIOPIA	63
FA	FAEROE ISLANDS	06
FG	FRENCH GUIANA	81
FI	FINLAND	02
FJ	FIJI	91
FK	FALKLAND ISLANDS (MALVINAS)	88
FR	FRANCE	07,61,71
FW	WALLIS AND FUTUNA ISLAND	91
GB	GAMBIA	61
GC	CAYMAN ISLAND	78
GD	GRENADA	78
GH	GHANA	65
GI	GIBRALTAR	08
GL	GREENLAND	04
GM	GUAM	91
GN	GUINEA	61
GO	GABON	64
GQ	EQUATORIAL GUINEA	64
GR	GREECE	16
GU	GUATEMALA	78
GW	GUINEA-BISSAU	61
GY	GUYANA	81
HA	HAITI	78
HE	ST HELENA	61
HK	HONG KONG	45
HO	HONDURAS	78
HU	HUNGARY	12
HV	BURKINA FASO (FORMERLY UPPER VOLTA)	65
IC	COMORO ISLANDS	67
ID	INDONESIA	96,97
IE	IRELAND	03
IL	ICELAND	04
IN	INDIA	42,43
IQ	IRAQ	40
IR	IRAN	40
IS	ISRAEL	40
IV	IVORY COAST	65
IW*	ISRAEL-JORDAN DMS	40
IY	ITALY	16
JD	JORDAN	40

JM	JAMAICA	78
JP	JAPAN	47
KA	CAROLINE ISLANDS	91
KB	KIRIBATI	91
KN	KENYA	63
KO	KOREA,REPUBLIC OF	47
KP	DEMOCRATIC KAMPUCHEA	48
KR	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	47
KS*	KASHMIR	43
KU	COOK ISLANDS	91
KW	KUWAIT	40
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC	48
LB	LEBANON	40
LC	ST.LUCIA AND BRITISH ISLANDS TO THE SOUTH	78
LI	LIBERIA	65
LJ	SLOVENIA	13
LN	SOUTHERN LINE ISLANDS	91
LS	LESOTHO	68
LT*	LIECHTENSTEIN	06
LY	LIBYAN ARAB JAMAHIRIYA	62
MA	MAURITIUS	61
MC	MOROCCO	60
MD	MADEIRA	08
MF	ST.MARTIN, ST.BARTHOLOMEW, GUADELOUPE, AND FR ISLANDS	78
MG	MADAGASCAR	67
MH	MARSHALL ISLANDS	91
MI	MALI	61
ML	MALTA	16
MN	ST.MAARTEN, ST.EUSTATIUS, AND SABA	78
MO	MONGOLIA	44
MR	MARTINIQUE	78
MS	MALAYSIA	48
MT	MAURITANIA	61
MU	MACAU	45
MV	MALDIVES	41,43
MW	MALAWI	67
MX	MEXICO	76
MY	MARIANA ISLANDS	91
MZ	MOZAMBIQUE	67
NC	NEW CALEDONIA AND LOYALTY ISLANDS	91
NG	PAPUA-NEW GUINEA	94
NH	VANUATU	91
NI	NIGERIA	65
NK	NICARAGUA	78
NL	NETHERLANDS	06
NM	NAMIBIA	68
NO	NORWAY	01
NP	NEPAL	44
NR	NIGER	61
NU	NETHERLANDS ANTILLES (ARUBA, BONAIRE, CURACAO)	78
NW	NAURU	91

NZ	NEW ZEALAND	93
OM	OMAN	40,41
OS	AUSTRIA	11
PF	FRENCH POLYNESIA	91
PH	PHILIPPINES	98
PI	PHOENIX ISLANDS	91
PK	PAKISTAN	41
PL	POLAND	12
PM	PANAMA	78
PN	NORTH PACIFIC	91
PO	PORTUGAL	08
PR	PERU	84
PS	SOUTH PACIFIC	91
PU	PUERTO RICO	78
PY	PARAGUAY	86
QT	QATAR	40,41
RA	FORMER U.S.S.R.(ASIA)	20-38
RE	REUNION AND ASSOCIATED ISLANDS	61
RH	CROATIA	13
RO	ROMANIA	15
RS	FORMER U.S.S.R.(EUROPE)	20-38
RW	RWANDA	64
SB	SRI LANKA	43
SC	SEYCHELLES	63
SD	SAUDI ARABIA	40,41
SG	SENEGAL	61
SI	SOMALIA	63
SK	SARAWAK	96
SL	SIERRA LEONE	61
SM	SURINAME	81
SN	SWEDEN	02
SO	SOLOMON ISLANDS	91
SP	SPAIN	08,60
SR	SINGAPORE	48
SU	SUDAN	62
SV	SWAZILAND	68
SW	SWITZERLAND	06
SY	SYRIAN ARAB REPUBLIC	40
TD	TRINIDAD AND TOBAGO	78
TG	TOGO	65
TH	THAILAND	48
TI	TURKS AND CAICOS ISLANDS	78
TK	TOKELAU ISLANDS	91
TN	TANZANIA,UNITED REPUBLIC OF	63
TO	TONGA	91
TP	SAO TOME AND PRINCIPE	61
TS	TUNISIA	60
TU	TURKEY	17
TV	TUVALU	91
TW*	TAIWAN	46
UG	UGANDA	63

UK	UNITED KINGDOM AND NORTHERN IRELAND	03,88
UR	UKRAINIAN S.S.R.	33,34
US	UNITED STATES OF AMERICA	70,72,74
UY	URUGUAY	86
VI	VIRGIN ISLANDS	78
VN	VENEZUELA	80
VS	VIET-NAM	48
WK	WAKE ISLAND	91
YE	YEMEN	40,41
YG	YUGOSLAVIA	13
ZA	SOUTH AFRICA	68
ZB	ZAMBIA	67
ZM	WESTERN SAMOA	91
ZR	ZAIRE	64
ZW	ZIMBABWE	67
**	SPECIAL PURPOSE COUNTRY IDENTIFIER	

SORTED BY COUNTRY NAME		ASSOCIATED WMO BLOCKS
AH	AFGHANISTAN	40
AB	ALBANIA	13
AL	ALGERIA	60
AN	ANGOLA	66
AT	ANTIGUA,ST.KITTS,NEVIS,BARBUDA AND MONTSERRAT	78
AG	ARGENTINA	87,88
AI	ASCENSION ISLAND	61
AU	AUSTRALIA	94,95
OS	AUSTRIA	11
AZ	AZORES	08
BA	BAHAMAS	78
BN	BAHRAIN	40,41
BW	BANGLADESH	41
BR	BARBADOS	78
BX	BELGIUM,LUXEMBUORG	06
BH	BELIZE	78
BJ	BENIN	65
BE	BERMUDA	78
BO	BOLIVIA	85
BC	BOTSWANA	68
BV	BOUVET ISLAND	68
BZ	BRAZIL	82,83
BT*	BRITISH INDIAN OCEAN TERRITORY	61
BF*	BRUNEI	96
BU	BULGARIA	15
HV	BURKINA FASO (WAS UPPER VOLTA)	65
BM	BURMA/MYANMAR	48
BI	BURUNDI	64
BY	BYELORUSSIA	26,33
CM	CAMEROON,UNITED REPUBLIC OF	64
CN	CANADA	71
CR	CANARY ISLANDS(SPAIN)	60
CT	CANTON ISLAND	91
CV	CAPE VERDE	08
CA	CARIBBEAN AREA AND CENTRAL AMERICA	78
KA	CAROLINE ISLANDS	91
GC	CAYMAN ISLAND	78
CE	CENTRAL AFRICAN REPUBLIC	64
CD	CHAD	64
CH	CHILE	85
CI	CHINA	50-59
CO	COLOMBIA	80
IC	COMOROS ISLANDS	67
CG	CONGO	64
KU	COOK ISLANDS	91
CS	COSTA RICA	78
RH	CROATIA	13
CU	CUBA	78
CY	CYPRUS	17

CZ	CZECHOSLOVAKIA	11
DN	DENMARK	06
KP	DEMOCRATIC KAMPUCHEA	48
KR	DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	47
DY	DEMOCRATIC YEMEN	40,41
DJ	DJIBOUTI	63
DO	DOMINICA	78
DR	DOMINICAN REPUBLIC	78
EG	EGYPT	62
ES	EL SALVADOR	78
EQ	EQUADOR	84
GQ	EQUATORIAL GUINEA	64
ET	ETHIOPIA	63
FA	FAEROE ISLANDS	06
FK	FALKLAND ISLANDS (MALVINAS)	88
FJ	FIJI	91
FI	FINLAND	02
FR	FRANCE	07,61,71
FG	FRENCH GUIANA	81
PF	FRENCH POLYNESIA	91
GO	GABON	64
GB	GAMBIA	61
DD	GERMAN DEMOCRATIC REPUBLIC	09
DL	GERMANY,FEDERAL REPUBLIC OF	10
GH	GHANA	65
GI	GIBRALTAR	08
GR	GREECE	16
GL	GREENLAND	04
GD	GRENADA	78
GM	GUAM	91
GU	GUATEMALA	78
GN	GUINEA	61
GW	GUINEA-BISSAU	61
GY	GUYANA	81
HA	HAITI	78
HO	HONDURAS	78
HK	HONG KONG	45
HU	HUNGARY	12
IL	ICELAND	04
IN	INDIA	42,43
ID	INDONESIA	96,97
IR	IRAN	40
IQ	IRAQ	40
IE	IRELAND	03
IS	ISRAEL	40
IW*	ISRAEL-JORDAN DMS	40
IY	ITALY	16
IV	IVORY COAST	65
JM	JAMAICA	78
JP	JAPAN	47
JD	JORDAN	40

KS*	KASHMIR	43
KN	KENYA	63
KB	KIRIBATI	91
KO	KOREA,REPUBLIC OF	47
KW	KUWAIT	40
LA	LAO PEOPLE'S DEMOCRATIC REPUBLIC	48
LB	LEBANON	40
LS	LESOTHO	68
LI	LIBERIA	65
LY	LIBYAN ARAB JAMAHIRIYA	62
LT*	LIECHTENSTEIN	06
MU	MACAU	45
MG	MADAGASCAR	67
MD	MADEIRA	08
MW	MALAWI	67
MS	MALAYSIA	48
MV	MALDIVES	41,43
MI	MALI	61
ML	MALTA	16
MY	MARIANA ISLANDS	91
MH	MARSHALL ISLANDS	91
MR	MARTINIQUE	78
MT	MAURITANIA	61
MA	MAURITIUS	61
MX	MEXICO	76
MO	MONGOLIA	44
MC	MOROCCO	60
MZ	MOZAMBIQUE	67
NM	NAMIBIA	68
NW	NAURU	91
NP	NEPAL	44
NL	NETHERLANDS	06
NU	NETHERLANDS ANTILLES (ARUBA,BONAIRE,CURACAO)	78
NC	NEW CALEDONIA AND LOYALTY ISLANDS	91
NZ	NEW ZEALAND	93
NK	NICARAGUA	78
NR	NIGER	61
NI	NIGERIA	65
PN	NORTH PACIFIC	91
NO	NORWAY	01
OM	OMAN	40,41
PK	PAKISTAN	41
PM	PANAMA	78
NG	PAPUA-NEW GUINEA	94
PY	PARAGUAY	86
PR	PERU	84
PH	PHILIPPINES	98
PI	PHOENIX ISLANDS	91
PL	POLAND	12
PO	PORTUGAL	08
PU	PUERTO RICO	78

QT	QATAR	40,41
RE	REUNION AND ASSOCIATED ISLANDS	61
RO	ROMANIA	15
RW	RWANDA	64
TP	SAO TOME AND PRINCIPE	61
SK	SARAWAK	96
SD	SAUDI ARABIA	40,41
SG	SENEGAL	61
SC	SEYCHELLES	63
SL	SIERRA LEONE	61
SR	SINGAPORE	48
LJ	SLOVENIA	13
SO	SOLOMON ISLANDS	91
SI	SOMALIA	63
ZA	SOUTH AFRICA	68
LN	SOUTHERN LINE ISLANDS	91
PS	SOUTH PACIFIC	91
SP	SPAIN	08,60
SB	SRI LANKA	43
HE	ST.HELENA	61
LC	ST. LUCIA AND BRITISH ISLANDS TO THE SOUTH	78
MN	ST. MAARTEN, ST.EUSTATIUS, AND SABA	78
MF	ST. MARTIN, ST. BARTHOLOMEW, GUADELOUPE, AND FR ISLANDS	78
SU	SUDAN	62
SM	SURINAME	81
SV	SWAZILAND	68
SN	SWEDEN	02
SW	SWITZERLAND	06
SY	SYRIAN ARAB REPUBLIC	40
TW*	TAIWAN	46
TN	TANZANIA,UNITED REPUBLIC OF	63
TH	THAILAND	48
TG	TOGO	65
TK	TOKELAU ISLAND	91
TO	TONGA	91
TD	TRINIDAD AND TOBAGO	78
TS	TUNISIA	60
TU	TURKEY	17
TI	TURKS AND CAICOS ISLANDS	78
TV	TUVALU	91
UG	UGANDA	63
UR	UKRAINE.	N3,34
ER	UNITED ARAB EMIRATES	40,41
UK	UNITED KINGDOM AND NORTHERN IRELAND	03,88
US	UNITED STATES OF AMERICA	70,72,74
UY	URUGUAY	86
RA	FORMER U.S.S.R.(ASIA)	20-38
RS	FORMER U.S.S.R.(EUROPE)	20-38
NH	VANUATU	91
VN	VENEZUELA	80
VS	VIET NAM	48

VI	VIRGIN ISLANDS	78
WK	WAKE ISLAND	91
FW	WALLIS AND FUTUNA ISLAND	91
ZM	WESTERN SAMOA	91
YE	YEMEN	40,41
YG	YUGOSLAVIA	13
ZR	ZAIRE	64
ZB	ZAMBIA	67
ZW	ZIMBABWE	67
**	SPECIAL PURPOSE COUNTRY IDENTIFIER	

APPENDIX D

ASSOCIATION OF BLOCK AND STATION NUMBER WITH COUNTRY

010000-014999	NORWAY
5000-9999	RESERVED
020000-026999	SWEDEN
7000-9999	FINLAND
030000-039499	UNITED KINGDOM AND NORTHERN IRELAND
9500-9999	IRELAND
040000-040999	ICELAND
1000-3999	GREENLAND
4000-9999	RESERVED
050000-059999	RESERVED
060000-061999	DENMARK AND FAROE ISLANDS
2000-3999	NETHERLANDS
4000-4999	BELGIUM
5000-5799	RESERVED
5800-5999	LUXEMBOURG
6000-9999	SWITZERLAND AND LIECHTENSTEIN
070000-079999	FRANCE
080000-084949	SPAIN
4950-4999	GIBRALTAR
5000-5999	PORTUGAL (MADEIRA, AZORES, AND CAPE VERDE ISLANDS)
6000-9999	RESERVED
090000-099999	GERMANY, DEMOCRATIC REPUBLIC OF
100000-109999	GERMANY, FEDERAL REPUBLIC OF
110000-113999	AUSTRIA
4000-9999	CZECHOSLOVAKIA
120000-126999	POLAND
7000-9999	HUNGARY
130000-135999	YUGOSLAVIA
6000-6999	ALBANIA
7000-9999	RESERVED
140000-149999	RESERVED
150000-154999	ROMANIA
5000-9999	BULGARIA
160000-165959	ITALY
5960-5999	MALTA
6000-7999	GREECE
8000-9999	RESERVED
170000-173999	TURKEY
4000-5999	RESERVED
6000-6199	CYPRUS
6200-9999	RESERVED
180000-189999	RESERVED
190000-199999	RESERVED
200000-399999	FORMER UNION OF SOVIET SOCIALIST REPUBLICS (RUSSIA)
400000-400999	SYRIA
1000-1499	LEBANON
1500-1999	ISRAEL
2000-2499	RESERVED (1 STATION (402300) IN JORDAN-7806, NOW = 402550)

2500-3499	JORDAN
3500-5499	SAUDI ARABIA (NORTH OF 23 DEGREES NORTH LATITUDE)
5500-5999	KUWAIT
6000-6999	IRAQ
7000-8999	IRAN
9000-9999	AFGHANISTAN
410000-411499	SAUDI ARABIA (SOUTH OF 23 DEGREES NORTH LATITUDE)
1500-1599	BAHRAIN (WAS IN BLK 40 PRIOR TO JAN 1983)
1600-1799	QATAR (WAS IN BLK 40 PRIOR TO JAN 1983)
1800-2399	UNITED ARAB EMIRATES (WAS IN BLK 40 PRIOR TO JAN 1983)
2400-3199	OMAN (WAS IN BLK 40 PRIOR TO JAN 1983)
3200-3999	YEMEN (WAS IN BLK 40 PRIOR TO JAN 1983)
4000-4999	DEMOCRATIC YEMEN (WAS IN BLK 40 PRIOR TO JAN 1983)
5000-8499	PAKISTAN
8500-9999	BANGLADESH
420000-429999	INDIA (STATIONS NORTH OF 20 DEGREES NORTH LATITUDE)
430000-433999	INDIA (STATIONS SOUTH OF 20 DEGREES NORTH LATITUDE)
4000-4999	SRI LANKA
5000-5999	MALDIVES (WAS IN BLK 41 PRIOR TO 8004)
6000-9999	RESERVED
440000-441999	RESERVED (WAS TIBET)
2000-3999	MONGOLIA
4000-4999	NEPAL
5000-9999	RESERVED
450000-450109	HONG KONG
0110-0209	MACAU (WAS MACAO)
0210-0299	RESERVED
0300-0409	HONG KONG
0410-9999	RESERVED
460000-469999	TAIWAN
470000-470799	NORTH KOREA
0800-1999	SOUTH KOREA
2000-9999	JAPAN AND ISLANDS
480000-482999	BURMA/MYANMAR
3000-5999	THAILAND
6000-6799	MALAYSIA
6800-7999	SINGAPORE
8000-9199	VIET-NAM
9200-9599	LAOS
9600-9999	KAMPUCHEA (WAS CAMBODIA)
490000-499999	RESERVED
500000-599999	CHINA
600000-600999	SPAIN (CANARY ISLANDS)
600330 AND 600969	WESTEN SAHARA (WAS RIO DE ORO)
1000-3499	MOROCCO
3200 AND 3380	SPAIN
3500-6999	ALGERIA
7000-7999	TUNISIA
8000-9999	RESERVED
610000-611999	NIGER
2000-3999	MALI

4000-5999	MAURITANIA
6000-6999	SENEGAL
7000-7499	GAMBIA
7500-7999	GUINEA/BISSAU (WAS PORTUGUESE GUINEA)
8000-8499	GUINEA
8500-8999	SIERRA LEONE
9000-9999	OCEAN ISLANDS
620000-622999	LIBYA (WAS LIBYAN ARAB REPUBLIC)
3000-5999	EGYPT (WAS ARAB REPUBLIC OF EGYPT)
6000-9999	SUDAN
630000-630999	ETHIOPIA (PART A)
1000-1499	DJIBOUTI (WAS FRENCH SOMALILAND)
1500-2999	SOMALIA
3000-5999	ETHIOPIA (PART B)
6000-9799	KENYA, TANZANIA (WAS TANGANYIKA), AND UGANDA
9800-9999	SEYCHELLES
640000-643799	ZAIRE (WAS BELGIUM CONGO)
3800-3899	RWANDA
3900-3999	BURUNDI
4000-4999	CONGO
5000-5999	GABON
6000-6999	CENTRAL AFRICAN REPUBLIC (WAS CENTRAL AFRICAN EMPIRE)
7000-7999	CHAD
8000-8499	EQUATORIAL GUINEA (WAS SPANISH GUINEA)
8500-9999	CAMEROON
650000-652999	NIGERIA
3000-3499	BENIN (WAS DAHOMEY)
3500-3999	TOGO
4000-4999	GHANA
5000-5259	BURKINA FASO (WAS UPPER VOLTA)
5260-5999	IVORY COAST
6000-6999	LIBERIA
7000-9999	RESERVED
660000-660999	RESERVED
1000-4999	ANGOLA (WAS PORTUGUESE WEST AFRICA)
5000-9999	RESERVED
670000-670089	COMOROS ISLANDS
0090-1999	MADAGASCAR
2000-3999	MOZAMBIQUE (WAS PORTUGUESE EAST AFRICA)
4000-9999	ZAMBIA, ZIMBABWE AND MALAWI (WERE RHODESIA AND NYSALAND)
680000-689999	SOUTH AFRICA, BOTSWANA, LESOTHO, NAMIBIA AND SWAZILAND
690000-699999	SPECIAL USE BY AWS (DET 7, AFGWC)
700000-709999	UNITED STATES (ALASKA)
710000-719999	CANADA (8050-8059 IS ST.PIERRE AND MIQUELON)
718050-718059	ST. PIERRE AND MIQUELON
720000-729999	UNITED STATES
730000-739999	RESERVED
740000-749999	UNITED STATES
750000-759999	RESERVED
760000-769999	MEXICO
770000-779999	RESERVED

780000-780199	BERMUDA
0200-0499	RESERVED
0500-1499	BAHAMAS AND TURKS ISLANDS
1180-1189	TURKS AND CAICOS ISLANDS
1500-3799	CUBA
3830-3849	CAYMAN ISLANDS
3870-3999	JAMAICA
4000-4499	HAITI
4500-4999	DOMINICAN REPUBLIC
5000-5499	PUERTO RICO AND U.S. POSSESSIONS IN THE CARIBBEAN AREA
5010-5019	HONDURAS (ISLAS DEL CISNE)
5500-5749	RESERVED
5750-5999	BELIZE
6000-6499	GUATEMALA
6500-6749	EL SALVADOR
6750-6999	RESERVED
7000-7249	HONDURAS
7250-7499	NICARAGUA
7500-7749	COSTA RICA
7750-8249	PANAMA AND CANAL ZONE
8250-8259	CLIPPERTON
8260-8459	RESERVED
8460-8499	ANGUILLA
8500-8599	ST. KITTS, NEVIS AND MONTSERRAT
8600-8649	ANTIGUA AND BARBUDA
8650-8749	ST. MAARTEEN, ST EUSTATIUS AND SABA
8750-8899	RESERVED
8900-9049	ST. MARTIN, ST BARTHOLOMEW, GUADALOUPE AND OTHER FRENCH ISLANDS IN THE VICINITY
9050-9149	DOMINICA
9150-9299	MARTINIQUE
9300-9449	RESERVED
9450-9539	ST. LUCIA AND ST. VINCENT
9540-9559	BARBADOS
9560-9599	GRENADA
9600-9749	TRINIDAD AND TOBAGO
9750-9799	RESERVED
9800-9949	ARUBA, CURACAO AND BONAIRE
9950-9999	RESERVED
800000-800029	COLOMBIA (SAN ANDRES AND PROVIDENCIA ISLANDS)
0030-3999	COLOMBIA
4000-7999	VENEZUELA
8000-9999	RESERVED
810000-811999	GUYANA
2000-3999	SURINAM
4000-5999	FRENCH GUIANA
6000-9999	RESERVED
820000-829999	BRAZIL (NORTH OF 10S)
830000-839999	BRAZIL (SOUTH OF 10S)
840000-842999	ECUADOR
3000-7999	PERU

8000-9999	RESERVED
850000-853999	BOLIVIA
4000-9999	CHILE
860000-862999	PARAGUAY
3000-5999	URAGUAY
6000-9999	RESERVED
870000-879999	ARGENTINA
880000-887999	RESERVED
8000-9999	ISLANDS
890000-899999	ANTARCTICA
900000-909999	RESERVED
910000-914999	ISLANDS IN THE PACIFIC OCEAN NORTH OF THE EQUATOR
5000-5299	SOLOMON ISLANDS (WAS BRITISH SOLOMON ISLANDS)
5300-5309	NAURU
5310-5399	DETACHED ISLANDS
5400-5499	SOLOMON ISLANDS (SANTA CRUZ ISLANDS)
5500-5699	VANUATU (WAS NEW HEBRIDES)
5700-5999	NEW CALEDONIA
6000-6299	KIRIBATI (WAS GILBERT ISLANDS)
6300-6499	TUVALU (WAS ELLICE ISLANDS)
6500-6999	FIJI ISLANDS
7000-7199	PHOENIX ISLANDS
7200-7499	TOKELAU ISLANDS
7500-7549	DETACHED ISLANDS
7550-7699	SAMOA
7700-7999	TONGA
8000-8999	COOK ISLANDS
9000-9199	SOUTHERN LINE ISLANDS
9200-9599	FRENCH POLYNESIA
9600-9999	DETACHED ISLANDS
920000-929999	RESERVED
930000-939999	NEW ZEALAND
940000-940999	PAPUA NEW GUINEA AND ADJACENT ISLANDS
941000-949999	AUSTRALIA AND ADDITIONAL ISLANDS
950000-954999	AUSTRALIA
5000-5109	ADELIE LAND (NOW IN BLOCK 89)
5110-9999	AUSTRALIA
960000-962999	INDONESIA (SUMATRA)
3000-3999	BRUNEI
4000-4999	MALAYSIA (SARAWAK AND SABAH)
5000-6999	INDONESIA (KALIMANTAN)
7000-9899	INDONESIA
9900-9999	ISLANDS
970000-971999	INDONESIA (SULAWESI)
2000-3799	INDONESIA (NUSATENGGARA)
3800-3999	EAST TIMOR (WAS PORTUGUESE TIMOR)
4000-9999	INDONESIA (MALUKU AND IRIAN JAYA)
980000-989999	PHILIPPINES
990000-999999	SPECIAL USE BY AWS (DET 7,AFGWC) FOR OCEAN VESSELS AND BUOYS

APPENDIX E

FIELD 06 **STATION NAME EXPLANATIONS**

- The name will be deleted in the name field when the listed block station is a copy of a report already listed under the country responsible for the station. The symbol '=' will be in column 15 followed by the block station number of the station taking the observation. The copy of original transmission can be either by agreement or intercept.

- Following WMO procedures, all new Chinese station entries after 1981 will have the name spelled in Pin Yin Romanization. Names for older Chinese station entries may be spelled in the Pin Yin or Wade-Giles or Cartographer Romanization.

- Stations that begin reporting by a new station identifier (call letters, ICAO) while continuing to report by the first assigned identifier will have their name (for one of the identifiers) shown as:

  "EQUALS" followed by the AWSMSC block station number and identifier.
  Example: 123456 EQUALS 234567 ABCD

- Stations that change their station number and no longer report data by the first assigned number will have the name for that first assigned station number changed for 2 months to:

  "BECAME" followed by the new station number and identifier, and then deleted. The new station will have an ampersand in column 33 to signify that this station once had a previous station number.
  Example: 123456 BECAME 234567 ABCD
  234567 NAME.....

Glossary of Russian abbreviations

b	=	bukhta.....bay
m	=	mys.....cape,point
o	=	ostrov.....island
oz	=	ozero.....lake
p	=	proliv.....strait
z	=	zaliv .....gulf

AGMS	-	Agricultural meteorological station
AGRO	-	Agricultural station
AMSG	-	Air weather station of the civil air fleet
DOSAAF	-	All union voluntary society for assistance to Army, Air Force and Navy of the U.S.S.R.
GMO	-	Hydrometeorological observatory
GMS	-	Hydrometeorological service
HMS	-	Scientific meteorological service

Other Abbreviations and Acronyms used in names:

?	-	Name and location based solely on estimate and is not neccessarily accurate.
AAF	-	U.S. Army Airfield
ACC	-	Area control center
AERO	-	Aerodrome
AHP	-	U.S. Army Heliport
AUX	-	Auxiliary
AFS	-	Airways Facilities Sector
AMOS	-	Automated Meteorological Observing System
ANG	-	Air National Guard weather facility
AUT	-	Automated reporting station
AUTOB	-	Automation of Cloud Observations
ARPT	-	Airport
AWOS	-	Automatic Weather Observing System
AWRS	-	Aviation Weather Reporting Station
ASOS	-	Automated Surface Observing System
BUT	-	Botanical
C-MANS	-	Coastal Marine Automated Network Site
CGS or C.G.	-	Coast Guard Station
CGAS	-	Coast Guard Air Station
CO	-	County
CV or CIV	-	Civilian
DEW	-	Distant Early Warning
FLD	-	Field
FSS	-	Flight service station
GAM	-	German Army
GNVY	-	German Navy
GNRY	-	Gunnery
INTL	-	International
ISL or IL	-	Island
JASDF	-	Japanese Air Self Defense Force
JGSDF	-	Japanese Ground Self Defense Force
JMSDF	-	Japanese Maritime Self Defence Force
JSDF	-	Japanese Self Defence Force
LH or LGT-H	-	Lighthouse
LS	-	Light Station
LGT-VSL or LV	-	Light vessel or light ship
LORAN	-	Long Range Navigation
MAN	-	Manual
MAPS	-	Meteorological Aeronautical Presentation System
MARS	-	Marine Aviation Reporting Station
MCAF	-	Marine Corps Air Facility
MCAS	-	Marine Corps Air Station
MCALF	-	Marine Corps Auxiliary Field
MEM	-	Memorial
MUNI	-	Municipal
MIL	-	Military
MT	-	Mount
MTN	-	Mountain
NV	-	Navy

NAF	-	Naval Air Field
NALF	-	Naval Auxiliary Landing Field
NAS	-	United States Naval Station
PO	-	Post Office
PT	-	Point
PVT	-	Private
RADAR	-	RADAR site only
RAF	-	Royal (United Kingdom Air Force)
RAMOS	-	Remote Automated Meteorological Observing System
READAC	-	Remote Environment Automatic Data Acquisition Concept
RGNL	-	Regional
RIV	-	River
RMAF	-	Royal Moroccan Air Force
RG or RNG	-	Range
RNLAFB	-	Royal Netherlands Air Force
SAAF	-	South African Air Force
ST.	-	Saint
STN	-	Station
SWARS	-	Supplementary Aviation Reporting Station
USA-AF	-	United States Army air field
USAFB	-	United States Air Force operated base in foreign country
USA-HP	-	United States Army heliport
VLLY	-	Valley
WSMO	-	Weather Service Meteorological Observatory

APPENDIX F

UPPER-AIR INSTRUMENT TYPE INDICATORS

COL 115 SYMBOL	MANUFACTURER	COUNTRY OF ORIGIN	COL 116 TYPE	INSTRUMENT TYPE (FREQUENCY IN MHZ)	
0	UNKNOWN		0	UNKNOWN	
B	ELIN	OS	1	2404	(403)
C	GRAW/SPRENGER	DL	1	M60	(403)
C	GRAW	DL	2	H60	(153)
C	GRAW/SPRENGER	DL	A	M60	(28)
D	INDIA MET. SERVICE	IN	1	A-SONDE MK.III	(401) OR (1680)
E	JINYANG(VIZ LICENSE)	KO	1		(1680)
F	METEOLABOR	SW	1	BASORA	(403)
G	MEISEI OR OKI	JP	1	RS-2-80	(1680)
H	MESURAL	FR	1	FMO 1950A	(403)
H	MESURAL	FR	2	FMO 1945A	(403)
H	MESURAL	FR	3	MH 73A	(403)
I	PHILLIPS	AU	1	ASTOR RS-4	(403)
J	METEORITE	RS	1	RKZ-2	(1782)
J	METEORITE	RS	2	RKZ-5	(1782)
J	METEORITE	RS	3	A-22IV	(216)
J	METEORITE	RS	A	A-22IV	(400)
K	SANGAMO	CN	1		(1680)
L	VAISALA	FI	1	RS-18	(25)
L	VAISALA	FI	2	RS21-12C	(403)
L	VAISALA	FI	3	RS21-13C	(1680)
L	VAISALA	FI	4	WS-18	(25)
L	VAISALA	FI	5	RS-80	(403)
M	VINOHRADY	CZ	1	ZAP MARS 4WF BERLIN	(1680)
N	VIZ	US	1	1392	(1680)
N	VIZ	US	2	1206	(403)
N	VIZ	US	3	1495	(403)
N	VIZ	US	4	AMT-4B	(1680)
N	VIZ	US	5	LORAN-C	(403)
N	VIZ	US	6	OMEGA	(403)
N	VIZ	US	7	J008 SOLID STATE	(1680)
N	VIZ	US	8	1397	(72)
N	VIZ	US	9	MICROSONDE	(403)
N	VIZ	US	A	1475	(403)
N	VIZ	US	B	1395	(403)
N	VIZ	US	C	1394	(403)
O	U.K. MET. OFFICE	UK	1	U.K. RS	(28)

Note: Whenever the manufacturer is known and the instrument type is unknown, Col. 115 will indicate B thru O and Col. 116=0.

Until 11 Nov 82, the following codes were used in Col 115; Col 116 was blank.

UPPER-AIR INSTRUMENT TYPE INDICATOR

0	=	UNKNOWN
1	=	USWB EXPOSED THERMISTOR-403MC/1680MC R/S
2	=	AUSTRALIAN-VARIABLE AM R/S
3	=	BENDIX AN/AMT-4/4B/4D/12/ GMD-1 TMQ 5 TYPE 430A
4	=	FRENCH - MEASURAL
5	=	CANADIAN - SANGAMO
6	=	INDIAN CHRON - AM R/S 1680 MHZ
7	=	INDIAN FAN - R/S
8	=	RUSSIAN - A 22 MALAHIT/ RKZ-2
9	=	CHINESE
A	=	WEST GERMAN - GRAW M60
B	=	PAKISTANI FM R/S 403 MHZ
C	=	FINNISH - VAISALA
D	=	JAPANESE - CODE SENDING
E	=	MALAYSIA ASTOR 403
F	=	ITALIAN - AUTOVOX IA/AMT
G	=	EAST GERMAN - FREIBERG RKS2
H	=	BRITISH - KEW MK II B
I	=	DIM TYPE R.V. 4
J	=	OMERA DECCA
K	=	PTU SWISS INSTITUTE
L	=	MARS 1 K

DISTRIBUTION

HQ USAF/XOOCW, Rm BD927, Washington, DC 20330-6560 1
OSAF/SS, Rm 4C1052, Pentagon, Attn: Weather, Washington, DC 20330-6560 1
USTC J3/J4-OW, Scott Dr., Bldg 1900, Scott AFB, IL 62225-7001 1
AWS/DO, Losey St., Bldg 1521, Scott AFB, IL 62225-5008 2
AWS/XTX, Losey St., Bldg 1521, Scott AFB, IL 62225-5008 1
Det 4, AWS, Bldg 91027, Hurlburt Fld, FL 32544-5000 1
Det 5, HQ AWS, Keesler AFB, MS 39534-5000 1
OL-B, HQ AWS, Hanscom AFB, MA 01731-5000 1
OL-N, HQ AWS, ASL (SLCAS-BW-W), Bldg 1646, Rm 24, Missile Range, White Sands, NM 88002-5501 . 1
HQ AFGWC, MBB39, 106 Peacekeeper Dr., Ste 2N3, Offutt AFB, NE 86113-4039 10
Det 7, AFGWC, E and 2nd St, Bldg 1750, Carswell AFB TX 76127-5000 3
Det 11, AFGWC, Hickam AFB HI 96853-5000 1
Det 40, AFGWC, APO AE 09494-5361 1
AFSFC/DON, Stop 82, Bldg 715, Patrick Ave., Falcon AFB, CO 80912-7160 1
USAFETAC/DOL, 859 Buchanan St, Scott AFB, IL 62225-5116 60
OL-A, USAFETAC, Federal Building, Rm 305, Asheville, NC 28801-2723 30
HQ USSPACECOM/J3W, 250 S Peterson Blvd, Ste 317, Bldg 1, Stop 7, Peterson AFB, CO 80914-3230 . . . 1
AFTAC/DOW, Patrick AFB, FL 32925-5000 1
SSD/MWA, PO Box 92966, Los Angeles, CA 90009-2960 1
CSTC/WE, 1080 Lockheed Way, Box 007, Bldg 1001, Sunnyvale, CA 94089-1230 1
AFMC/DOW, Bldg 266, Post 108P, Chidlaw Rd., Wright-Patterson AFB, OH 45433-5001 2
FASTC/TAW, 4115 Hebble Creek Rd., Ste 33, Wright-Patterson AFB, OH 45433-5637 2
ASD/WE, Bldg 91, 3rd St., Wright-Patterson AFB, OH 45433-6503 1
WL/DOW, Wright-Patterson AFB, OH 45433-6543 1
WL/DOA, Wright-Patterson AFB, OH 45433-6543 1
PL/WE, Kirtland AFB, NM 87117-5000 1
HQ AFOTEC/WE, Kirtland AFB, NM 87117-7001 1
RL/WE, Griffiss AFB, NY 13441-5700 1
RL/DOVL, 26 Electronic Pkwy, Bldg 106, Griffiss AFB, NY 13441-4514 1
AFESC/RDXT, Bldg 1120, Stop 21, Tyndall AFB, FL 32403-5000 1
ESD/WE, Vandenberg Dr., Bldg 1624, Hanscom AFB, MA 01731-5000 1
PL/TSML, Research Library, Hanscom AFB, MA 01731-5000 1
AFFTC/WE, Edwards AFB, CA 93523-5000 1
OL-A, AFCOS, Site R, Fort Ritchie, MD 21719-5010 1
AMC/XOWR, Bldg P40 N, Martin Ave, Scott AFB, IL 62225-5000 3
ATC/DOTW, Bldg 399, Rm B27, D St., East, Randolph AFB, TX 78150-5000 1
PACAF/DOW, Bldg 1102, Hickam AFB, HI 96853-5000 3
USSTRATCOM J315, 901 SAC Blvd, Ste BA3, Offutt AFB, NE 68113-5000 3
ACC/DOW, Bldg 21, 30 Elm St., Ste 215, Langley AFB, VA 23655-2093 5
1WG, Bldg 168, Hardee St., Ft McPherson, GA 30300-5000 1
USAFE/DOW, Unit 3050, Box 15, APO AE 09094-5000 3
17AF/DOW, Unit 4065, APO AE 09136-5000 1
COMNAVOCEANCOM, Code N312, Stennis Space Ctr, MS 39529-5000 2
NAVOCEANO (Barnie Rau), Bldg 8100, Rm 203D, Stennis Space Ctr, MS 39522-5001 25
Naval Research Laboratory, Monterey, CA 93943-5006 1
Naval Research Laboratory, Code 4323, Washington, DC 20375 1
Naval Postgraduate School, Chmn, Dept of Meteorology, Code 63, Monterey, CA 93943-5000 1
Naval Air Warfare Center-Wpns Div, Geophysical Sciences Branch, Code 3254, Point Mugu, CA 93042-5001 1
Chief, APG Met Team, Bldg 1134, Attn: AMSTE-TC-AM CAB, Aberdeen Proving Ground, MD 21005-5001 1

Atmospheric Sciences Laboratory (SLCAS-AS-I 3 10-2c), White Sands Missile Range, NM 88002-5501 1
TECOM Atmos Sci Div, AMSTE-TC-AA (MacBlain), White Sands Missile Range, NM 88002-5504 1
White Sands Met Team, AMSTE-TC-AM (WS), White Sands Missile Range, NM 88002-5501 1
USA TECOM, Attn: AMSTE-TC-AM (RE), TECOM Met Team, Redstone Arsenal, AL 35898-8052 1
Director, USA-CETEC, Attn: GL-AE (Whitmarsh), Fort Belvoir, VA 22060-5546 1
Technical Library, Dugway Proving Ground, Dugway, UT 84022-5000 1
NOAA/MASC Library NC5, 325 Broadway, Boulder, CO 80303-3328 2
NOAA Libary-EOC4W5C4, Attn: ACQ, 6009 Executive Blvd, Rockville, MD 20852 1
NOAA/NESDIS (Attn: Nancy Everson, E/RA22), World Weather Bldg, Rm 703, Washington, DC 20233 ... 1
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